2: Murra E-4 (no date) 1943 SD6 Cayapa SD6

291 Children wear no clothes at all until they are 6 or 8.

301 The hair is worn loose, long, and flowing by the women but is clipped
302 above the ears by the men. Both sexes wear necklaces and wristbands of glass and porcelain beads, coins, seeds, and beetle wings. Only women wear earrings.

302 The traditional *Chibcha* custom of frequently painting body and face is found among the *Cayapa*. Red, yellow, and black are used, and the designs are very numerous. Barrett reproduces many of the motifs and insists that there is no special significance attached to any of them, nor is there any age, sex, or property correlation.

TRANSPORTATION

501 **Watercraft.**—A large part of every *Cayapa's* life is spent on the water fishing and traveling. Canoes are built with great skill and care. They
[439] can withstand not only fluvial but also maritime travel and are routinely sold in the "civilized" coast towns. They are dugouts, usually 10 to 12 yards long but sometimes much larger. Balsa-wood logs are sometimes used as outriggers.

MANUFACTURES

000 Details of *Cayapa* manufactures are contained in Barrett's work, which describes and illustrates finished products and minutely discusses the techniques of preparation.

322 **Woodworking.**—Woodworking includes house building, making deadfall traps, and carving seats and children's dolls.

285 **Weaving and basketry.**—The women weave cotton cloth on a narrow
286 native loom, and the men do the sewing. The men also weave the fishing
462 nets and hammocks. Barrett's discussion of *Cayapa* basketry is outstanding. The *Cayapa* make many kinds of baskets, mats, and fans of bark and of various roots.

323 **Pottery.**—Pottery is crude and undecorated. It is used particularly for
177 storage. Tradition claims that in their old Highland habitat the *Cayapa* made better pottery but that calabashes have since largely replaced ceramics.

324 **Stonework and metalwork.**—Stonework is limited to the metates
325 used in grinding corn and plantains. Although in aboriginal times Lowland Ecuador was a famous area of metallurgy, there is no evidence that the contemporary *Cayapa* practiced it.

411 **Weapons.**—The weapon most widely used today is the muzzle-loading
177 shotgun. The blowgun was important in the past, but today its use is restricted to boys, who shoot poison darts while playing at hunting. Hardwood lances are being given up, and the bow and arrow is said not to be mentioned in *Cayapa* tradition. The steel machete is ubiquitous.

3: Barrett E-5 (1908-1909)1925
SD6 Cayapa SD6

fresh from the rollers, as well as after boiling, in fact at any stage before it begins to ferment, the juice is called pī′ wapū, literally "water guarapo," in contradistinction to the fermented juice, which is called sa′wapū, meaning "sour guarapo." The ollas referred to are especially made for the purpose, and are the most difficult work of the potter, as their size renders them not only inconvenient to form and handle while drying, but makes them also extremely hard to fire. They are almost invariably coated inside and out with brea (Cayapa, amū′ya), the wax of a small bee, which renders them impervious and prevents waste through seepage. The bases of these large vessels are comparatively small, therefore to prevent them from tipping, each is set upon a ring made of refuse cane. When sugar-cane was first introduced among the Cayapa, rum was not made, but the fermented guarapo was much drunk, and even at the present time considerable quantities are so used. To be sure, it is by no means so intoxicating as rum itself, but after it has fermented for two to three weeks it contains a considerable proportion of alcohol. The fermented guarapo is drunk not only about the home and during the process of distillation, but also to a certain extent at fiestas, to which it is brought in large ollas and consumed in place of rum and by some in preference to it.

The guarapo is finally distilled in order to produce the concentrated alcoholic beverage known by the Spanish name aguardiente and called by the Cayapa i′ckala. The still used in this final process is illustrated in pl. LXIII, from a photograph made while the distillation was in

3: Barrett E-5 (1908-1909)1925
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of small ridges may now serve, however, it seems to have had its origin in a desire to ornament the stirrers, since most of them are plain at that point (as is the one shown in fig. 7), and because various stirrers of this form have carvings at that point which are similar though much smaller and are obviously purely ornamental.

A second form of stirring implement is the food paddle, called kūwi'ñgī, two specimens of which are shown in pl. LXI, 8, 9. These are used for stirring all kinds of foods while cooking, but especially ripe plantain gruel and a kind of gruel or mush made from green corn. In many cases these paddles are perfectly plain, as is the one shown in fig. 9, but now and then they are embellished with notches or incised ornaments as is the case with the one shown in fig. 8.

A utensil in common domestic use is an elliptical wooden bowl, copied after a type made by the whites and negroes of the region and bearing only the Spanish name batea. They vary more or less in their elliptical form, but a typical specimen is shown in pl. LXII, 4. They are always provided with a projection at each end to serve as handles. They are hollowed out from a single piece of wood, and range from a foot to three feet in length. Bateas serve a variety of purposes, but they are used especially for the preparation of certain foods, such as ripe plantain gruel, corn gruel or mush, and the like. They are used also as trays for washing meats or other foods, and frequently are employed in mixing and working clay during the process of pottery-making.

3: Barrett E-5 (1908-1909)1925
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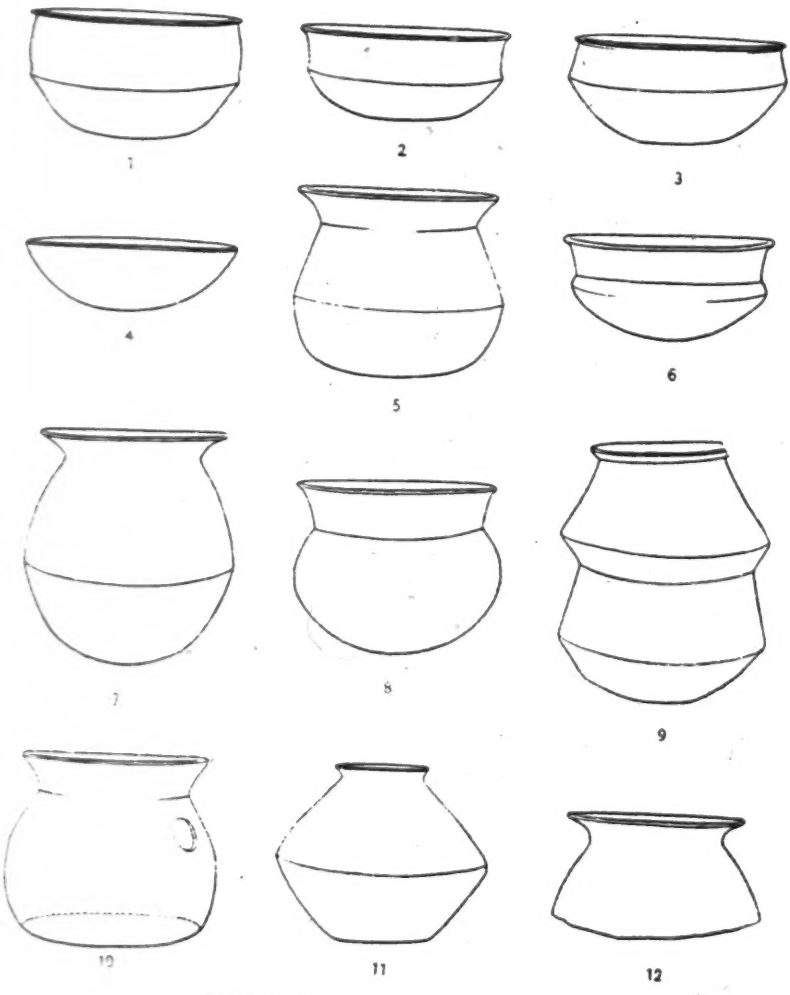

FORMS OF POTTERY VESSELS

[p. 172 (B)]

3: Barrett E-5 (1908-1909)1925
SD6 Cayapa SD6

ones are used to a certain extent in eating, although for this purpose they have been largely superseded by iron spoons. Calabash spoons, like the mates, are often ornamented with incised lines.

Pottery

The Cayapa make a rather crude, heavy pottery vessel, entirely undecorated except in a few forms in which incised lines and dots are impressed in the rim or the shoulder; but no painting, slipping, or glazing is used. The generic name for pottery is pia′ma, or bīa′ma.

There are in all ten forms of pots, eight of which are in general use among the Cayapa. All are shown in outline in pl. LXXXVII. These types are: 1, A shallow plate form (fig. 4), called specifically tō′ palatō. 2, A somewhat deeper cooking-pot (figs. 1–3), the sides of which, under ordinary circumstances, are comparatively straight, while the rim is without a lip. 3, Another cooking-pot (fig. 6), with a more or less hemispherical base, a pronounced shoulder around the side, and a prominent outcurving lip. 4, A small, flat-bottomed pot (fig. 5), somewhat of the form of an inverted truncated cone and with a more or less outcurving lip. 5, A somewhat globose form (fig. 8), with wide neck and outcurving rim. 6, A large storage olla (fig. 11), called specifically bū′lūm bīama, with slightly oval bottom, more or less conical sides, and narrow neck with outcurving rim. 7, A large pottery caldron (fig. 7), which forms part of the still. 8, The condensing chamber (fig. 10), without bottom, used in distilling rum. Pots of the

3: Barrett E-5 (1908-1909)1925
SD6 Cayapa SD6

forms shown in figs. 1–2, 6, are without special name, being known by the generic term pīa′ma. Those of the forms represented in figs. 5, 7, 8, are called kanda′rō.

To these earthenware vessels may be added a ninth form, though it can not strictly be considered as a separate type, since it is made by breaking off the lower portion of one of the other forms (fig. 12). It is set over the fire and serves as a kind of chimney to direct the smoke and heat upward to the fish that are laid upon sticks across its mouth for curing. There is also used, though rarely, for making chocolate, a pot with reëntrant sides like that shown in fig. 9.

The clay, called tū or *tō*, used in pottery-making is yellowish-brown in color and is dug from the banks of certain esteros. Usually a considerable quantity is gathered at a time and brought by canoe to the house, where it is worked over to remove stones, sticks, and other impurities. It is then wrapped in leaves and put in a shady place until needed, being moistened with water from time to time. For tempering the pottery there is mixed with the clay a bluish, gritty earth, called lu′c tū, meaning literally "blue earth or clay," which also is found in a few places along the river.

In making pottery, the woman takes a quantity of cleaned clay and again works it over to remove any remaining foreign substances, water being added if necessary to make it plastic. When the clay is of the proper consistency, the bluish, gritty earth above referred to is thoroughly kneaded into it, in quantity equaling perhaps one-tenth that of the clay. This

3: Barrett E-5 (1908-1909)1925
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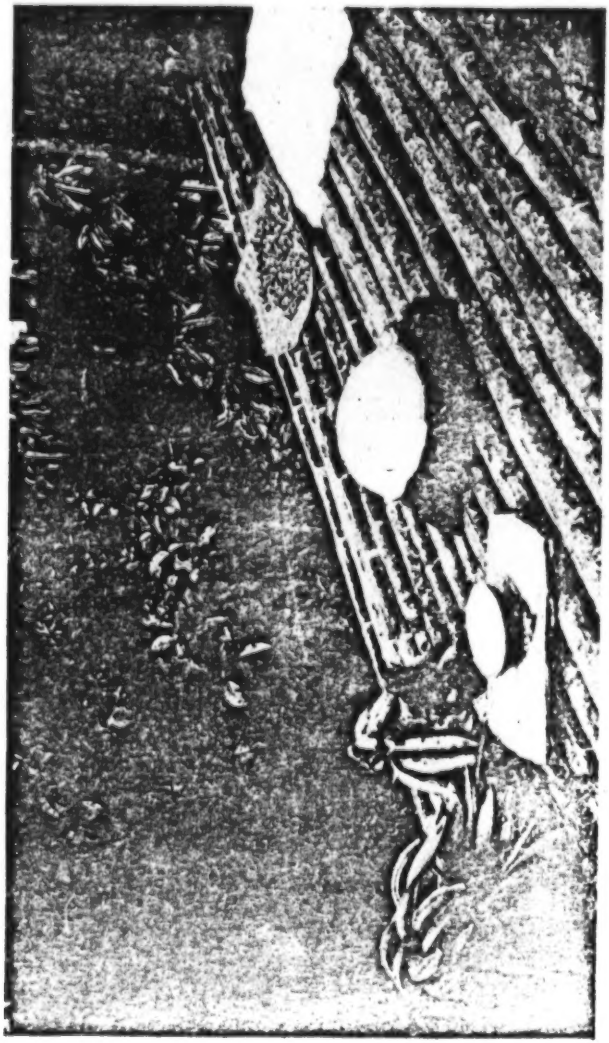
PL. LXXXVIII



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POTTERY VESSELS SET TO DRY

BARRETT—CAYAPA INDIANS

[p. 174(1)]

3: Barrett E-5 (1908-1909)1925
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PL. LXXXIX

FIRING POTTERY

BARRETT—CAYAPA INDIANS

[P. 174(B)]

3: Barrett E-5 (1908-1909)1925
SD6 Cayapa SD6

tempering material is called tû ya'ndû. The mixing of a small quantity of clay is a mere matter of rolling and kneading it in the hands; but if a considerable quantity is required, as in making a large olla, it is usually mixed in a large wooden tray such as that shown in pl. LXII, 4. After thorough kneading, handfuls are torn from the side of the mass and thrown back violently on top of it. This process completed, a small lump of the clay is taken, or a very small, crude pot is made, and immediately baked in the fire-box in the house as a test. 323

To make a small plate-form utensil, one about four inches in diameter, a lump of prepared clay is rolled carefully between the hands to form a smooth sphere. The right thumb is then inserted and the ball of clay is turned about it in such manner as to make a depression in the center. Then by constantly pressing between the thumb and the fingers as the ball is rotated, the depression is gradually enlarged until finally the bottom and sides of the pot, of even thickness, are formed. If the vessel is very small, this work may all be done upon the palm of the left hand, but if it is of medium or large size, a board, ten or twelve by fifteen or eighteen inches (pl. LXXXVIII), or other flat object is used in order that the vessel may readily be turned. Occasionally the wooden base is elaborately made, as that shown in pl. LXXXIII, 1, which is circular, has four legs, and resembles in some respects the wooden benches before described. Its special use, however, is that of a rest for the larger pieces of pottery, and it is claimed by the Cayapa that it was rarely or never used as a seat. [413] 352

3: Barrett E-5 (1908-1909)1925
SD6 Cayapa SD6

323 The bottom and sides of the small receptacle having been formed, the edge is trimmed and made of uniform thickness by placing the thumb on the inner surface at the edge, the end of the first finger on the edge itself, and the ball of the second finger on its outer surface. By passing the fingers, held in this position, back and forth over a space two or three inches at a time, the edge is gradually reduced to uniform thickness and all unevenness is removed. Places thinner than desired are patched with a small quantity of clay carefully worked in and smoothed like the rest. Should there be a place that is too thick, a pinch of the clay is taken with thumb and finger before the smoothing is commenced. The edge is finally smoothly finished with the inner surface of a small piece of green banana or plantain peel.

[443] There is always a certain roughness on the inner and outer body surfaces of a pot at this stage; this is removed by means of small instruments, called tömbilya'mba, made usually from sections of broken calabash dishes or spoons, the edges of which are ground on a stone until they are uniform in outline and sharp. The smoothing of both the surfaces and the edge having been completed, the pot is set in the shade to dry and harden. This requires, in the case of a small, thin-walled pot, only a few days, when it is ready for firing. Care is taken not to dry a pot too rapidly, and that it dries uniformly, on account of the danger of cracking due to differential shrinking.

The base of a larger pot is made from a lump or mass of clay in the same manner as that above described, except that the edge is not smoothed so carefully. This

3: Barrett E-5 (1908-1909)1925
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POTTERY AFTER FIRING

[p. 176(d)]

3: Barrett E-5 (1908-1909)1925
SD6 Cayapa SD6

323 base is set in a cool, shady place to dry partially, then the remainder of the pot is built up by the coiling process. A base is shown in the foreground of pl. LXXXVIII, in which an unfinished pot of medium size is seen on the board used as a rest and which enables the potter to turn the vessel about easily and without pressing it out of shape. Such a base is dried, for a length of time depending on its size and the thickness of its walls, until it is hard enough to bear the weight of the first coil upon its edge. A pot six or eight inches in diameter will dry sufficiently in two or three days to permit of the application of the first coil, but a large and correspondingly heavy olla requires several days to dry.

The coils are made by rolling out between the palms of the hands a rope of clay of a length equal to the circumference of the pot and of a thickness, for a pot of medium size, usually not more than a half to three-quarters of an inch, and for a large pot not more than an inch. A groove is made with the ball of the first finger the full length of the coil of clay, which is then placed with the groove downward over the edge of the pot, any surplus being nipped off with the thumb and finger at the point where the ends meet. These two ends are then worked together with the thumb and fingers, and the edges of the groove in the coil are next pressed down upon the edge of the portion of the pot previously completed. While this finished portion of the pot is more or less dry and hard, it is not hardened sufficiently to render it unpliable, hence it is easy to mingle the new clay of the coil with the old clay of the formed portion. The upper

3: Barrett E-5 (1908-1909)1925
SD6 Cayapa SD6

323 part of the coil is now worked out with the thumb and fingers until it is of the same thickness as the lower portion, after which its edge and sides are smoothed as were those of the portion of the pot already completed.

This one coil is usually sufficient to complete a plate-form pot of medium size, but in pots of other forms and sizes the number of coils varies. After the addition of each coil, the pot is set aside to dry somewhat before the next coil is added, since the moist clay is not sufficiently stiff to support a considerable weight.

This method of forming the bottom and lower part of the sides applies only to the small and medium-size pots. In making the bottom of a large pot the following method is employed: An old pot or other object of approximately the size and form desired for the bottom of the pot to be made, is covered with thin leaves or with a piece of cloth in order that the clay may not adhere to the rigid surface. A large lump of clay is then worked out into a thick disc, which is laid on the form and patted and worked in such manner as to cover it uniformly and of the required thickness. While still on the form, it is allowed to dry, since the clay required for this part of such a vessel is of such quantity that it could not stand alone. Such a form with the bottom of a large olla upon it is illustrated in pl. LXXXVIII. The fresh clay is shown here formed upon the cloth-covered bottom of a large cooking-pot, the black cloth appearing below the edge of the clay. At last, when the bottom is sufficiently dry, it is removed from the form and its sides and edge are smoothed as above described in speaking of smaller receptacles. Hence-

3: Barrett E-5 (1908-1909)1925
SD6 Cayapa SD6

forward the process of building a large pot, coil upon coil, is the same as that employed in making small ones. 323

The largest earthenware receptacles made by the Cayapa are the storage ollas (pl. LXXXVII, 11), used for the fermentation of cane-juice, these vessels being sometimes of a diameter and height of three feet. These large ollas are highly prized, as it is difficult to build up successfully, with the comparatively narrow coils of clay, such large vessels without a flaw in joining the coils. It is also hard to get the clay used in the various coils always of exactly the same consistency, and it is especially difficult to dry the olla properly without checking or other mishap. But the greatest difficulty of all is in the firing; indeed, although a considerable proportion of such large vessels fail in the early stages of their construction, probably ninety percent of those successfully built up and cured, crack in the firing. On the other hand, comparatively little difficulty is experienced in modeling and firing small or medium-size receptacles of varying shapes.

As before stated, the only decoration found on Cayapa pottery consists of small incised dots and lines on the edge of the opening or the shoulder, and even this simple ornamentation is rarely used. The vessel is decorated after being only partly dried. The lines are incised with the sharp-edged calabash instrument used for smoothing the surfaces of the receptacle, while the dots are made by means of the serrated edge of the shell of a small bivalve. The decoration consists almost invariably of a simple row of parallel lines placed vertically or obliquely. Now and then a zigzag is used. 323 531

3: Barrett E-5 (1908-1909)1925
SD6 Cayapa SD6

323 After a pot has become fairly dry and hard, its surface receives the final smoothing, and in some cases it is given [824 almost a polish. This is done by means of a large 413] discoidal nut, called mūlūmbū mūñge'nū, indigenous to the region. The same nut is used in making tops and also the spinning handles for tops. In pl. LXXXV, 1, 4, it is shown used in these two ways. In smoothing pottery the edge of the nut is wet with saliva and is rubbed back and forth repeatedly over the vessel, thus smoothing the surface and making it more impervious by filling the pores. No slip or paint of any kind is used.

The vessels are now ready for firing. A quantity of wood is gathered and the pots are carried to an open place near the house. Here they are stacked one within another or arranged on the ground in any convenient manner, and a kiln is made by carefully piling wood around and among them. Coals are brought from the fire-box in the house, the pile is ignited, and the fire is carefully watched and more wood added as required. A pottery kiln is shown in pl. LXXXIX, the photograph for which was taken just after the fire was lighted. This firing process requires from twenty minutes to an hour, depending on the number and size of the pots, and the quantity of wood used. As the fire dies down, the pots are left as shown in pl. XC, being now thoroughly fired. The earthenware is generally removed with a pole while still hot, and is tested by tapping gently to detect any possible cracking. If badly cracked the vessels are [356] immediately thrown away, but in the case of large pots that are only slightly cracked, they are often kept and repaired with wax (brea).

3: Barrett E-5 (1908-1909)1925
SD6 Cayapa SD6

If possible some ripe-plantain gruel, called ma'la, is poured into the newly-fired pots, which are returned to the embers where the gruel is soon cooked. This cooking serves to fill the pores of the pottery, rendering it practically impervious. If it is not practicable to boil the gruel immediately, the inner and outer surfaces of the receptacles are later rubbed thoroughly with green plantain for the same purpose. This method, however, is considered inferior to the other. 323

All pottery used for ordinary cooking and serving is completed with the firing and the filling of the pores with plantain. Those pots, however, designed for use in fermenting cane-juice in making rum or for the storage of liquids, rather than for use over the fire, are given a coating of brea, usually inside and out, which renders them impervious. It would be useless to apply the brea to pots that are to be placed over the fire, since it melts at a low temperature and readily ignites. Also, if a pot is not intended for storing liquids, there is no reason why it should be entirely impervious, since all earthenware will hold liquids for a short time without allowing moisture to pass through it to any detrimental extent. 323 415

So far as is known, fired clay serves but one other purpose among the Cayapa, that of making small sinkers, called wengõtca'lĭ, for fish-lines. These sinkers are either globose or cylindrical, with perforations through the center, and are fired in the same manner as ordinary pots. A line with its sinker is shown in fig. 9 (page 131). 323 227

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3: Barrett E-5 (1908-1909)1925
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made by cutting with the point of a knife or machete through the calabash rind, exposing the inner, white, hard portion which at first contrasts greatly with the brown general surface of the utensil. After such a utensil has been used for a time the incised designs also become brown. The calabash designs shown in pl. LXXXVI present various realistic figures, as well as a considerable number of geometric designs. In the small series of figures shown in this plate there are ten recognizable animal forms, namely:

Subject	*Figures*
Human being	1–4
Human being on horse	5, 9
Monkey	6
Horse or dog	18
Bird	10–12
Lizard	13
Turtle	16
Crab	14, 36
Scorpion	7
Tick	15
Animal (unknown form)	8, 17

The majority of these designs are relatively small, but in the crab design shown in fig. 36 of pl. LXXXVI, is presented a notable exception. This design appeared about the opening of a large, spherical, water-storage calabash and covered about half the entire surface of the vessel. The usual names given to the various animals themselves are also applied to these designs. As usual, on the other hand, the geometric figures are frequently unnamed.

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Cayapa pottery is very simple in its forms and is entirely without decoration except in rare instances in

3: Barrett E-5 (1908-1909)1925
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which a slight attempt is made to ornament the edge of the shoulder of a vessel with a few incised lines or dots. No names are given to these simple decorations, and no attempt is made to work out any regular patterns even in the rare instances in which they are used.

The designs in hard textiles—twilled baskets, mats, and fans—are purely geometric, fairly simple (as is shown in pl. CV), and few in number. These conditions are quite natural and are imposed by the character of the material and the technic employed. There is comparatively little naming of these designs. Zigzags such as those shown in figs. 3 and 5 of the plate are called dē'tcū, and figures such as are illustrated in figs. 25 and 27 are commonly called kapū'ka, signifying "eye."

Soft Textile Designs

It is in the soft textiles that the greatest variety of both geometric and realistic designs appears and where the only detailed naming of designs occurs. A table of the names of the various manta designs shown in pl. CXXIII-CXXVII, together with a glossary, is given in the following pages. From these data various interesting facts concerning the names of manta designs are apparent.

The names may be classified as: mammals, birds, reptiles, insects, miscellaneous animate objects, parts of animate objects, plants, artificial objects, geometric figures, and untranslatable terms. The following tabulation will show the various numbers in each class.

Other wooden articles still made by the Cayapa include the /tǎči wimáso/ 'bark cloth beater,' /mačúka/ 'plantain masher,' and food stirrers of various types. A full listing and description can be had by consulting Barrett (Barrett 1925: 159-161). Elliptical wooden bowls called batea in Spanish, are cut from a single piece of wood, and they serve as trays for the preparation of some foods.

Musical instruments, which are played by the men, include the marimba or /mí mba/, a large drum called by the Spanish word bombo, and a small free-standing drum that tapers at the base called conunu. The Negroes use the same instruments, but they also use various gourd rattles and bamboo shakers. Guitars are occasionally found among the Negroes but only seldom among the Cayapa.

Pottery. This art is scarcely practiced anymore. In fact I was completely unaware that earthenware pots were in the household inventory at all until I was asked one day if I wished to purchase a small Cayapa-made one for five sucres (.30 U.S.). This was the only pot I ever saw, except for the large cantaras made by the people of the San Miguel section, for the storage of /wápo/, the fermented sugar-cane juice called guarapo in Spanish.

322 [412] [252]

[415]

534 [462]

[171]

323 [178] [126]

[273]